

CLAIMS

What is claimed is:

1. A method for electrosurgically sealing tissue, comprising the steps of:
5 applying a first pulse of RF energy to the tissue; and
applying at least one subsequent RF energy pulse to the tissue and varying RF energy parameters of individual pulses of subsequent RF energy pulses in accordance with at least one characteristic of an electrical transient that occurs during the individual pulses of the subsequent RF energy pulses.

10 2. A method as in claim 1, wherein the step of applying the first pulse includes a step of selecting characteristics of the first pulse so as not to appreciably heat the tissue.

15 3. A method as in claim 1, wherein the step of applying the first pulse comprises the steps of:

continuously measuring at least one characteristic of a response of the tissue to the applied first pulse; and
in accordance with the measured characteristic, determining whether to change a set of RF energy parameters to a default set of RF energy parameters.

20 4. A method as in claim 3, wherein the default set of RF energy parameters comprise a magnitude of a starting power and a magnitude of a starting voltage.

5. A method as in claim 1, wherein the electrical transient is an electric current transient.

25 6. A method as in claim 5, wherein the at least one characteristic of said electrical transient is a rate of change of the electric current transient.